STIC Search Report
EIC 2100

STIC Database Tracking Number: 183844

TO: Michael B Holmes **Location: RND 5A49** **Art Unit: 2121** **Friday, March 31, 2006** **Case Serial Number: 10/695707**	**From: Lucy Park** **Location: EIC 2100** **RND-4B11** **Phone: 571-272-8667** **lucy.park@uspto.gov**

Search Notes

Dear Examiner Holmes,

Here are the search results for your Fast & Focused search request on case number 10/695707. I flagged the results that looked most relevant, but please review all of the results. Please let me know if you have any questions about these or if you need any further information.

Lucy

STIC EIC 2100 Search Request Form

183844

Today's Date: 03/31/06

What date would you like to use to limit the search?

Priority Date: Other:

Name MICHAEL B. HOGATES

AU 2121 Examiner # 78360

Room # 8A49 Phone 23680

Serial # 10/695,707

Format for Search Results (Circle One):

PAPER DISK EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB

IEEE INSPEC SPI Other WEST

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at http://ptoweb/patents/stic/stic-tc2100.htm.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

Is this request for an APPEALS or SARS case? (Circle One) YES NO

STIC Searcher Lucy Park Phone 28667

Date picked up 3/31/06 Date Completed 3/31/06

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File 347:JAPIO Nov 1976-2005/Nov(Updated 060302)
        (c) 2006 JPO & JAPIO
File 350:Derwent WPIX 1963-2006/UD,UM &UP=200621
        (c) 2006  Thomson Derwent

Set     Items   Description
S1      13844   DECISION???(3N)(MAKE? ? OR MADE OR MAKING OR SUPPORT??? OR
             SYSTEM? ?) OR DSS
S2    6817692   CHOICE? ?  OR CHOOS??? OR OPTION? ? OR SELECT???? OR ALTER-
             NATIVE? ? OR ELECT???? OR DECISION? ? OR OUTCOME? ? OR SOLUTI-
             ON? ?
S3      95560   S2(3N)(SORT??? OR RANK??? OR ORDER??? OR ARRANG??? OR ARRA-
             NGEMENT? ?)
S4      70101   PREFERENCE? ? OR PRIORIT??? OR PRIORITIZ??? OR PRIORITIZAT-
             ION? ? OR PRIORITIS??? OR PRIORITISATION? ? OR FAVOR???
S5    1513056   INVERVAL? ? OR GAP? ? OR DIFFERENCE? ? OR DISTANCE? ?
S6      17738   S5(3N)(RANK??? OR SCOR??? OR GRADE? ? OR GRADING OR RATE? ?
              OR RATING OR NUMBER???)
S7          0   S1 AND S3(5N)S4 AND S6
S8          3   S1 AND S3 AND S6
S9        304   S1 AND S3
S10        30   S9 AND S5
S11         6   S10 AND IC=(G06E OR G06G OR G06F OR G06N)
S12         5   S11 NOT S8
S13      3566   DECISION???(3N)(SUPPORT??? OR SYSTEM? ?) OR DSS
S14         3   S13 AND S6
S15         3   S14 NOT (S8 OR S12)
S16       198   S13 AND S5
S17         6   S16 AND S3
S18         4   S17 NOT (S8 OR S12 OR S15)
S19      4757   (DEGREE? ? OR AMOUNT? ? OR EXTENT? ? OR MEASUR???)(3N)(SIM-
             ILAR? OR DISSIMILAR?)
S20         6   S19 AND S13
S21         5   S20 NOT (S8 OR S12 OR S15 OR S18)
S23         0   S3 AND S4 AND S6
S24       100   S3 AND S6
S25         5   S24 AND DECISION?
S26         2   S25 NOT (S8 OR S12 OR S15 OR S18 OR S21)
S27        18   S3(5N)S4 AND S5
S28        18   S27 NOT (S8 OR S12 OR S15 OR S18 OR S21 OR S26)
S29        18   S28 NOT AD=20031029:20060331/PR
S30        29   S10 NOT AD=20031029:20060331/PR
S31        17   S30 NOT (S8 OR S12 OR S15 OR S18 OR S21 OR S26 OR S28)
S32        36   S1 AND S6
S33        30   S32 NOT (S8 OR S12 OR S15 OR S18 OR S21 OR S26 OR S28 OR S-
              31)
S34        28   S33 NOT AD=20031029:20060331/PR
S35      6383   S6(7N)(ADJACENT? OR NEXT()"TO" OR BETWEEN)
S36       275   S35(7N)S2
S37        21   S36 AND (DECISION? OR DECID?)
S38        21   S37 NOT (S8 OR S12 OR S15 OR S18 OR S21 OR S26 OR S28 OR S-
              31)
S39        21   S38 NOT AD=20031029:20060331/PR
? logoff hold
       31mar06 15:37:27 User259273 Session D367.5
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12/5/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015972852 **Image available**
WPI Acc No: 2004-130693/200413
XRAM Acc No: C04-052067
XRPX Acc No: N04-104195

Intrinsically valid statistical approach for analysis of inexact ordinal data having variable(s), comprises partially ordering data by determining for all pairs of data, order of first datum compared to second datum as superior or inferior

Patent Assignee: WITTKOWSKI K M (WITT-I)
Inventor: WITTKOWSKI K M
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030182281	A1	20030925	US 2001315474	P	20010828	200413 B
			US 2002230019	A	20020828	

Priority Applications (No Type Date): US 2001315474 P 20010828; US 2002230019 A 20020828
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030182281	A1		52	G06F-007/00	Provisional application US 2001315474

Abstract (Basic): US 20030182281 A1

NOVELTY - An intrinsically valid statistical approach for the analysis of inexact ordinal data having a variable(s), comprises partially ordering data by determining for all pairs of data, the order of a first datum compared to a second datum as superior, inferior, equal, or undecided, where for tupels a partial ordering comprises the first datum to be superior, if for each variable the first datum is superior or equal.

DETAILED DESCRIPTION - An intrinsically valid statistical approach for the analysis of inexact ordinal data having a variable(s), comprises partially ordering data by determining for all pairs of data, the order of a first datum compared to a second datum as superior, inferior, equal, or undecided, where for tupels a partial ordering comprises the first datum to be superior if for each variable the first datum is superior or equal, and for a variable(s), the first datum is superior; factorizing the partially ordering data; generating a score for each datum based on the partial ordering; estimating an information content for each of the scores; generating a weight for each score based on the information content; and aggregating the scores and weights of all data using statistical method for weighted rank scores, where the statistical methods comprise ranking, positioning, comparing, discriminating/regressing, and clustering.

An INDEPENDENT CLAIM is also included for a process based on an intrinsically valid statistical approach, where a **decision maker** obtains an **ordered** list of categories to which an entity may be assigned, by utilizing a database of reference data sets of known categories and a potentially large set of variables, comprises restricting a database of reference entities of known categories to an ad-hoc database based on a first subset of variables, termed characteristics; selecting a set of control categories based on a second subset of variables, termed control indicators; selecting a set of case categories based on a third subset of variables, termed case indicators; selecting a reference population subset for each of the case categories, and one reference population for a union of the control categories; selecting a set of variables, termed

discriminators, specific to a selected case category and the entity's characteristics subset, where the entity is positioned with respect to the joint case population and control population; determining the entity's score relative to the control population, termed specificity, and the subject's score relative to the case population, termed sensitivity; and ordering the categories by utilizing information form all obtained relative positions and consequences of assuming the entity to belong to a particular category.

USE - An intrinsically valid statistical approach for the analysis of inexact ordinal data having a variable(s), useful for a process of providing a method for an assisted diagnosis of a patient that is automated, interactive assisted diagnosis, or assisted diagnosis automated via a remote portable device (claimed). It is for use in sports, advising on investments, forecasting, thunderstorms, identifying deposits of minerals or oil, face-recognition, detection of fraud or other criminal activities, early warning of terroristic activities, or of technical failures in complex systems.

ADVANTAGE - The invention solves shortcomings in dealing with multivariate ordinal data; and overcomes a need for external validation. It enables a **decision support system** providing automated **decision support** in a transparent fashion optionally capable of being controlled by a **decision maker** ; providing for evidence acquisition concept, including automatically increasing the content of an underlying database; and providing for an computationally efficient interactive distributed environment.

DESCRIPTION OF DRAWING(S) - The figure illustrates process components of intrinsically valid statistical approach.

pp; 52 DwgNo 1/20

Title Terms: INTRINSIC; VALID; STATISTICAL; APPROACH; ANALYSE; INEXACT; ORDINAL; DATA; VARIABLE; COMPRISE; ORDER; DATA; DETERMINE; PAIR; DATA; ORDER; FIRST; DATA; COMPARE; SECOND; DATA; SUPERIOR; INFERIOR

Derwent Class: B04; D16; S05; T01

International Patent Class (Main): **G06F-007/00**

File Segment: CPI; EPI

12/5/5 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012704719 **Image available**
WPI Acc No: 1999-510828/199943
XRPX Acc No: N99-380876

Determining quality of heart function signals from electrocardiograph machines

Patent Assignee: HEWLETT-PACKARD CO (HEWP); AGILENT TECHNOLOGIES INC (AGIL-N)
Inventor: WANG J J
Number of Countries: 004 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2335747	A	19990929	GB 996610	A	19990322	199943	B
DE 19902253	A1	19991007	DE 1002253	A	19990121	199947	
US 5967994	A	19991019	US 9848620	A	19980326	199950	
JP 11313806	A	19991116	JP 9982492	A	19990325	200005	
GB 2335747	B	20020522	GB 996610	A	19990322	200241	

Priority Applications (No Type Date): US 9848620 A 19980326
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2335747	A		48	G06F-017/00	
DE 19902253	A1			A61B-005/0472	
US 5967994	A			A61B-005/0402	
JP 11313806	A		16	A61B-005/0428	
GB 2335747	B			G06F-017/00	

Abstract (Basic): GB 2335747 A

NOVELTY - The method of determining heart signal quality assesses the **difference** between an EKG signal (600) and each previous signal received to generate a ranking system (628) of the effective quality of the signal.

DETAILED DESCRIPTION - The method works by taking the inputted EKG data (600) is sent to filters and detection equipment (602, 604, 606) and the central point of the waveform is calculated for comparison of waveforms (608), the waveforms are then stored (612, 614) for comparison with each further waveform (616) to generate histogram details on the **differences** between each signal (622, 624). The final stage of the process uses the histogram data to rank the signal quality (626, 628).

An INDEPENDENT CLAIM is included for the system of characterizing quality of heart function signals.

USE - For use with electrocardiograph machines for determining electric signal quality of heart signals.

ADVANTAGE - The **ranking system** allows for **decisions** of which of the EKG signals to use and also the possibility of using weighting factors when averaging multi-lead signals. The method creates a quality assessment that is responsive to any combination of bigeminal and trigerminal abnormal rhythms and physiological or non-physiological noise in the signal.

DESCRIPTION OF DRAWING(S) - Block diagram of a system using the methods for determining quality of heart functions.

EKG Input signals (600)
Detection filter (602)
Waveform analysis filter (604)
QRS. complex detector (606)
Center point computation equipment (608)
QRS. data storage (612, 614)

Waveform comparison system (616)
Histogram generation (622, 624)
Rank system decision logic (626)
Signal quality ranking signal (628)
pp; 48 DwgNo 6/9
Title Terms: DETERMINE; QUALITY; HEART; FUNCTION; SIGNAL; ECG; MACHINE
Derwent Class: P31; S05; T01
International Patent Class (Main): A61B-005/0402; A61B-005/0428; A61B-005/0472; **G06F-017/00**
International Patent Class (Additional): G01R-029/26
File Segment: EPI; EngPI

15/5/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015759622 **Image available**
WPI Acc No: 2003-821824/200377
XRPX Acc No: N03-657244

Automatic translation system selection program for computer, calculates compatibility of translation with respect to each translation system used in input data translation, for selection of suitable system

Patent Assignee: KOKUSAI DENKI TSUSHIN KISO GIJUTSU KENKY (KOKU-N)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2003263434	A	20030919	JP 200265365	A	20020311	200377	B

Priority Applications (No Type Date): JP 200265365 A 20020311
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2003263434	A		12	G06F-017/28	

Abstract (Basic): JP 2003263434 A

NOVELTY - The input data is translated by two translation systems. The data processing (DP) **distance** and the syntax **score** which shows the compatibility of translation with respect to each translation **system** are calculated by **decision** -tree learning method based on which a suitable system is selected.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for computer readable recorded medium storing translation system selection program.

USE - Program for selecting translation systems such as example based machine translation (EBMT) and transfer driven machine translation (TDMT) for computer.

ADVANTAGE - A program for making computer to perform an automatic selection of the translation system suitable for input data translation is provided.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart explaining the automatic translation system selection program steps. (Drawing includes non-English language text).

pp; 12 DwgNo 3/10

Title Terms: AUTOMATIC; TRANSLATION; SYSTEM; SELECT; PROGRAM; COMPUTER; CALCULATE; COMPATIBLE; TRANSLATION; RESPECT; TRANSLATION; SYSTEM; INPUT; DATA; TRANSLATION; SELECT; SUIT; SYSTEM
Derwent Class: T01
International Patent Class (Main): G06F-017/28
File Segment: EPI

18/5/3 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO

01854579 **Image available**
DECISION SYSTEM OF RECOGNITION **ORDER**

PUB. NO.: 61-068679 [JP 61068679 A]
PUBLISHED: April 09, 1986 (19860409)
INVENTOR(s): MATSUMURA HIROSHI
IWAHARA TATSUNOSUKE
APPLICANT(s): SANYO ELECTRIC CO LTD [000188] (A Japanese Company or Corporation), JP (Japan)
TOKYO SANYO ELECTRIC CO LTD [323368] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 59-190963 [JP 84190963]
FILED: September 12, 1984 (19840912)
INTL CLASS: [4] G06K-009/68
JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units)
JAPIO KEYWORD:R106 (INFORMATION PROCESSING -- Kanji Information Processing) ; R107 (INFORMATION PROCESSING -- OCR & OMR Optical Readers)
JOURNAL: Section: P, Section No. 487, Vol. 10, No. 237, Pg. 84, August 15, 1986 (19860815)

ABSTRACT

PURPOSE: To improve a recognition rate by ignoring priority of a code about a large similarity degree so as to decide a recognition order only by the similarity degree and deciding the order of a code by priority about a small similarity degree.

CONSTITUTION: Assuming that city block **distances** d(sub v) and d(sub p) of character-type codes M(sub v) and M(sub p) are far minimal and the following relations are satisfied: d(sub p)<D(sub .alpha.), D(sub .alpha.)<dA and dB<D(sub .beta.), the character-type codes M(sub v) and M(sub p) are classified to a class A, while character-type codes MA, MQ and MB are classified to a class B. With respect to the character-type codes M(sub v) and M(sub p) in the class A the recognition order is not exchanged by the priority, while the recognition order is exchanged by the priority with respect to the character-type codes MA, MQ and MB in the class B. Thus the character-type codes M(sub v) and M(sub p) having the low priority and large similarity degree are decided to be the 1st and 2nd orders, respectively, and in the class B having the small similarity degree the character-type codes MA and MB with the high priority come to higher orders and turn out to be the 3rd and fourth orders all over.

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File   2:INSPEC 1898-2006/Mar W3
         (c) 2006 Institution of Electrical Engineers
File   6:NTIS 1964-2006/Mar W3
         (c) 2006 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2006/Mar W3
         (c) 2006 Elsevier Eng.  Info. Inc.
File  23:CSA Technology Research Database 1963-2006/Mar
         (c) 2006 CSA.
File  34:SciSearch(R) Cited Ref Sci 1990-2006/Mar W3
         (c) 2006 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2006/Mar
         (c) 2006 ProQuest Info&Learning
File  65:Inside Conferences 1993-2006/Mar 31
         (c) 2006 BLDSC all rts. reserv.
File  94:JICST-EPlus 1985-2006/Jan W1
         (c)2006 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2006/Mar W4
         (c) 2006 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2006/Feb
         (c) 2006 The HW Wilson Co.
File 111:TGG Natl.Newspaper Index(SM) 1979-2006/Mar 23
         (c) 2006 The Gale Group
File 144:Pascal 1973-2006/Mar W1
         (c) 2006 INIST/CNRS
File 239:Mathsci 1940-2006/May
         (c) 2006 American Mathematical Society
File 256:TecInfoSource 82-2006/Apr
         (c) 2006 Info.Sources Inc
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 155:MEDLINE(R) 1951-2006/Apr 03
         (c) format only 2006 Dialog
File   5:Biosis Previews(R) 1969-2006/Mar W4
         (c) 2006 BIOSIS
File  73:EMBASE 1974-2006/Mar 29
         (c) 2006 Elsevier Science B.V.
File  88:Gale Group Business A.R.T.S. 1976-2006/Mar 24
         (c) 2006 The Gale Group

Set     Items   Description
S1     748362   DECISION???(3N)(MAKE? ? OR MADE OR MAKING OR SUPPORT??? OR
             SYSTEM? ? OR LOGIC) OR DSS
S2   24361538   CHOICE? ?  OR CHOOS??? OR OPTION? ? OR SELECT???? OR ALTER-
             NATIVE? ? OR ELECT???? OR DECISION? ? OR OUTCOME? ? OR SOLUTI-
             ON? ?
S3     204369   S2(3N)(SORT??? OR RANK??? OR ORDER??? OR ARRANG??? OR ARRA-
             NGEMENT? ?)
S4    5882000   PREFERENCE? ? OR PRIORIT??? OR PRIORITIZ??? OR PRIORITIZAT-
             ION? ? OR PRIORITIS??? OR PRIORITISATION? ? OR FAVOR???
S5    8513103   INVERVAL? ? OR GAP? ? OR DIFFERENCE? ? OR DISTANCE? ?
S6     290877   S5(3N)(RANK??? OR SCOR??? OR GRADE? ? OR GRADING OR RATE? ?
              OR RATING OR NUMBER???)
S7         15   S1 AND S3(5N)S4 AND S6
S8         15   RD  (unique items)
S9         14   S8 NOT PY=2004:2006
S10    193867   DECISION???(3N)(SUPPORT? ? OR SYSTEM? ? OR LOGIC) OR DSS
S11        82   S10 AND S3 AND S6
S12        62   S11 AND S4
S13        61   RD  (unique items)
S14     87099   S6(5N)(ADJACENT? OR NEXT()"TO" OR BETWEEN)
S15        30   S14 AND S10 AND S3
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S16         30   RD  (unique items)
S17         30   S16 NOT S8
S18         24   S17 NOT PY=2004:2006
S19         46   S13 NOT PY=2004:2006
S20         29   S19 NOT (S8 OR S17)
S21      79643   DECISION???()SUPPORT???()SYSTEM? ?
S22        110   S21 AND S3(5N)S4
S23         11   S22 AND S5
S24         11   S23 NOT (S8 OR S17 OR S20)
S25         11   RD  (unique items)
S26         10   S25 NOT PY=2004:2006
? logoff hold
       31mar06 16:37:00 User259273 Session D367.11
```

9/5/1 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

03095464 Genuine Article#: NA394 Number of References: 19
Title: FURTHER CONTRIBUTIONS TO THE STUDY OF THE AVERAGE VALUE FOR RANKING FUZZY NUMBERS
Author(s): CAMPOS L; GONZALEZ A
Corporate Source: UNIV GRANADA,FAC CIENCIAS,DPTO CIENCIAS COMPUTAC & INTELIGENCIA ARTIFICIAL/E-18071 GRANADA//SPAIN/
Journal: INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, 1994, V10, N2 (FEB), P135-153
ISSN: 0888-613X
Language: ENGLISH Document Type: ARTICLE
Geographic Location: SPAIN
Subfile: SciSearch; CC ENGI--Current Contents, Engineering, Technology & Applied Sciences
Journal Subject Category: ENGINEERING, ELECTRICAL & ELECTRONIC; COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
Abstract: The average value was introduced to help in the ordering of fuzzy numbers and was defined by means of an integrating process of a parametric function representing the position of every alpha-cut in the real line. Some well-known indices are included in this schema. We study some properties of the average value, and by interpreting the different parameters used to define it, we show that it can be adapted to the **decision - maker** 's preference. Finally, **distance** measures between fuzzy **numbers** associated with the average value are defined.
Descriptors--Author Keywords: FUZZY NUMBERS ; **DECISION - MAKER** PREFERENCES ; **RANKING** FUNCTIONS ; INTERVAL ANALYSIS ; **DISTANCE** MEASURES
Identifiers--KeyWords Plus: PROBABILITY; SUBSETS
Research Fronts: 92-1425 001 (FUZZY INFERENCE; DECISION RULES FOR DISTRIBUTED DECISION NETWORKS; BELIEF STRUCTURES)
92-2949 001 (FUZZY NUMBERS; DESIGN METHOD OF DISTILLATION COLUMN SYSTEMS; IMPRECISE DATA)
92-3958 001 (EXPECTED UTILITY; RISKY CHOICE; INDEPENDENCE AXIOM)
92-8258 001 (FUZZY NUMBER-VALUED FUZZY INTEGRALS; CONDITIONAL G-LAMBDA-MEASURES)
Cited References:
ADAMO JM, 1980, V4, P207, FUZZY SETS SYSTEMS
BALDWIN JF, 1979, V2, P213, FUZZY SETS SYSTEMS
BONISSONE PP, 1979, P793, P IEEE INT C CYBERNE
BORTOLAN G, 1985, V15, P1, FUZZY SET SYST
CAMPOS LM, 1989, V29, P145, FUZZY SETS SYSTEMS
CHOQUET G, 1953, V5, P131, ANN I FOURIER GRENOB
DUBOIS D, 1987, V24, P279, FUZZY SET SYST
DUBOIS D, 1983, P300, P IEEE INT C CYBERNE
ESHRAGH F, 1979, V11, P501, INT J MAN MACH STUD
GOETSCHEL R, 1983, V10, P87, FUZZY SET SYST
GONZALEZ A, 1990, V35, P29, FUZZY SET SYST
GONZALEZ A, 1987, THESIS U GRANADA SPA
RALESCU AL, 1984, V34, P85, INFORM SCIENCES
RAPOPORT A, 1987, V9, P397, MATH MODELLING
SHAFER G, 1976, MATH THEORY EVIDENCE
SUGENO M, 1974, THESIS TOKYO I TECHN
TSUMURA Y, 1981, P21, SUMMARY PAPERS GENER
YAGER RR, 1981, V24, P143, INFORMATION SCI
ZWICK R, 1987, V1, P221, INT J APPROXIMATE RE

18/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

06849772 INSPEC Abstract Number: C9804-6130G-014
Title: Measuring disagreement in groups facing limited choice problems
Author(s): Whitworth, B.; Felton, R.
Author Affiliation: Dept. of Inf. Syst., Manukau Inst. of Technol., Auckland, New Zealand
Conference Title: Proceedings of the Thirty-First Hawaii International Conference on System Sciences (Cat. No.98TB100216) Part vol.1 p.351-9 vol.1
Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA
Publication Date: 1998 Country of Publication: USA 7 vol. (xiv+689+ix+346+xi+470+xiv+581+xi+481+xiv+753+xvi+849) pp.
ISBN: 0 8186 8255 8 Material Identity Number: XX98-00230
U.S. Copyright Clearance Center Code: 1060-3425/98/$10.00
Conference Title: Proceedings of the Thirty-First Hawaii International Conference on System Sciences
Conference Sponsor: Univ. Hawaii
Conference Date: 6-9 Jan. 1998 Conference Location: Kohala Coast, HI, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Practical (P); Theoretical (T)
Abstract: A measure of the amount of disagreement, D, in a group facing a problem with limited solution choices is proposed. D is simple to calculate, meaningfully derived and provides a standard scale from 0 to 1 for the disagreement of any size group facing a number of solution choices. It also provides a related measure, d, which allows the measurement of the disagreement of each individual in the group. D essentially compares the **number** of **differences** found **between** pairs of individuals in the group with the number of differences theoretically possible. Extension of the measure to the case where the solution **choices** are represented by **ranked**, interval and ratio scale data shows that D is equal to twice the variance of the solution scores, although in this case the maximum value of D may be greater than 1. The properties of this measure are explored and found to be similar to what is expected of a measure of disagreement. An example application is given, illustrating how disagreement at both the individual and group levels can be meaningfully and usefully represented by d and D. The measure was used in an experiment where computer-mediated groups of five subjects, interacting only through a computer network, had to provide group solutions to multi-choice questions with four choice options. (19 Refs)
Subfile: C
Descriptors: **decision support systems** ; decision theory; group **decision support systems** ; groupware; probability
Identifiers: group disagreement measurement; limited choice problems; standard scale; ranked data; interval data; ratio scale data; computer-mediated groups; computer network; multi-choice questions; group **decision support systems** ; probability
Class Codes: C6130G (Groupware); C7102 (Decision support systems); C1140E (Game theory)

26/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

03703403 INSPEC Abstract Number: C86040158
Title: NAI: a consensus seeking algorithm for group decision support systems
Author(s): Bui, T.X.
Author Affiliation: Dept. of Adm. Sci., Naval Postgraduate Sch., Monterey, CA, USA
Conference Title: IEEE 1985 Proceedings of the International Conference on Cybernetics and Society (Cat. No.85CH2253-3) p.380-4
Publisher: IEEE, New York, NY, USA
Publication Date: 1985 Country of Publication: USA 1115 pp.
Conference Sponsor: IEEE
Conference Date: 12-15 Nov. 1985 Conference Location: Tucson, AZ, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Theoretical (T)
Abstract: The author proposes a consensus-seeking algorithm for a group **decision support system** -the Negotiable Alternatives Identifier (NAI)-that could be used together with the techniques of aggregation of preferences. Departing from individual and cardinal rankings of alternatives, NAI uses differential techniques to group **rank alternatives** into three classes of **preferences** : the most preferred, the preferred, and the least preferred sets of alternatives. Within each class, infinitesimal **differences** in preferences between alternatives allow the decision makers to trade them with confidence. As a result, a collective decision that may not be necessarily unanimous, but is essentially acceptable by all can be suggested. The proposed algorithm is currently operational in a **decision support system** for cooperative multiple criteria group decision-making. (10 Refs)
Subfile: C
Descriptors: **decision support systems** ; decision theory
Identifiers: consensus seeking algorithm; group **decision support systems** ; Negotiable Alternatives Identifier; aggregation of preferences; differential techniques; cooperative multiple criteria group decision-making
Class Codes: C1140E (Game theory); C1290 (Applications of systems theory); C7102 (Decision support systems)

26/5/2 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

04791896 E.I. No: EIP97083789254
Title: Group decision support tools for analyzing committee consensus structures based on the L//1 distance function
Author: Glorfeld, Louis W.
Corporate Source: Univ of Arkansas, Fayetteville, AR, USA
Conference Title: Proceedings of the 1996 27th Annual Meeting of the Decision Sciences Institute. Part 2 (of 3)
Conference Location: Orlando, FL, USA Conference Date: 19961124-19961126
E.I. Conference No.: 46863
Source: Proceedings - Annual Meeting of the Decision Sciences Institute v 2 1996. Decis Sci Inst, Atlanta, GA, USA. p 481-483
Publication Year: 1996
CODEN: PAMSED
Language: English
Document Type: CA; (Conference Article) Treatment: G; (General Review); T; (Theoretical)
Journal Announcement: 9710W2
Abstract: The rapid development of computer technology has spurred the development of sophisticated group support system (GSS). Although these systems may employee leading edge technologies, some of the system subcomponents may be ad hoc in composition and not based on a unified view or theoretical foundation that correctly supports the component systems final objective. One important component system, the priority ranking consensus support system, although adequate, could be improved upon at least in some implementations. A set of priority ranking consensus support tools is proposed that is based on theoretical considerations derived from social choice theory. The unique feature of these tools is that they are all based on the L//1 metric which may be mathematically proven to form a unique basis for deriving a rational **priority ranking** consensus **decision** . Four basic components are developed: 1) a consensus generator, 2) a new form of an overall consensus summary statistic, 3) a graphical consensus display via profile plotting, and 4) an automatic consensus clustering routine. An example is used to illustrate how these components work. (Author abstract)
Descriptors: ***Decisio** n **support systems** ; Decision making; Information technology; Theorem proving; Statistics; Computer graphics
Identifiers: Priority ranking consensus support systems
Classification Codes:
912.2 (Management); 723.5 (Computer Applications); 723.4 (Artificial Intelligence); 922.2 (Mathematical Statistics)
723 (Computer Software); 912 (Industrial Engineering & Management); 903 (Information Science); 922 (Statistical Methods)
72 (COMPUTERS & DATA PROCESSING); 91 (ENGINEERING MANAGEMENT); 90 (GENERAL ENGINEERING); 92 (ENGINEERING MATHEMATICS)

26/5/5 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

02433528 Genuine Article#: LB447 Number of References: 28
Title: AN APPLICATION OF THE ANALYTIC HIERARCHY PROCESS - A RANK-ORDERING OF COMPUTER INTERFACES
Author(s): MITTA DA
Corporate Source: TEXAS A&M UNIV SYST,DEPT IND ENGN,238 ZACHRY ENGN CTR/COLL STN//TX/77843
Journal: HUMAN FACTORS, 1993, V35, N1 (MAR), P141-157
ISSN: 0018-7208
Language: ENGLISH Document Type: ARTICLE
Geographic Location: USA
Subfile: SocSearch; SciSearch; CC ENGI--Current Contents, Engineering, Technology & Applied Sciences; CC SOCS--Current Contents, Social & Behavioral Sciences
Journal Subject Category: PSYCHOLOGY, APPLIED; ERGONOMICS; PSYCHOLOGY; BEHAVIORAL SCIENCES
Abstract: This paper presents the analytic hierarchy process (AHP) as a methodology for developing ratio scales from paired comparison data. The AHP offers several advantages over traditional psychophysical approaches for generating measurement scales. One advantage is its ability to readily quantify consistency in human judgments. Another is the ability of the AHP to provide useful empirical results in the event of a small sample of subjects and when the likelihood of obtaining meaningful statistical results may be restricted. Finally, the methodology requires no statistical assumptions regarding the distribution of human judgments. This paper demonstrates that the AHP can be applied to types of subjective data frequently acquired during human factors experimentation. In an empirical scenario, subjects performed paired comparison judgments on a set of five computer interfaces designed for an automated part recognition system. The objective was to rank these interfaces on the basis of users' perceptions regarding two interface characteristics: usability and learnability. Results of the analysis provide ratio scales for evaluating both interface usability and learnability.
Research Fronts: 91-5823 002 (LINGUAL VIBROTACTILE THRESHOLD SHIFT DURING MAGNITUDE-ESTIMATION SCALING; RELATIVE **DISTANCE** IN THE AUDITORY MODALITY; EXAMPLE OF PAIN)
91-8062 002 (ANALYTIC HIERARCHY PROCESS; **DECISION SUPPORT SYSTEM** ; SELECTION METHODOLOGY)
91-3111 001 (**PREFERENCE CHOICE** ANALYSIS; **RANKING** DATA; DIMENSIONAL MODELS)
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